

2.0 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

2.1 Status of the Project

The US-31 freeway project in Berrien County, Michigan has been in development for over 30 years. The objective has been to provide a 30 mile US-31 freeway connection from the I-80/90 toll road in Indiana to I-94 and US-31/I-196. Construction of the US-31 freeway as approved in a 1981 Final Environmental Impact Statement (FEIS) has been ongoing and was completed to Napier Avenue in 2003, as illustrated in **Figure 2.1**. A Summary of the 1981 FEIS can be found in **Section 1.0 Summary of the 1981 Final Environmental Impact Statement for the US-31 Freeway in Berrien County**.

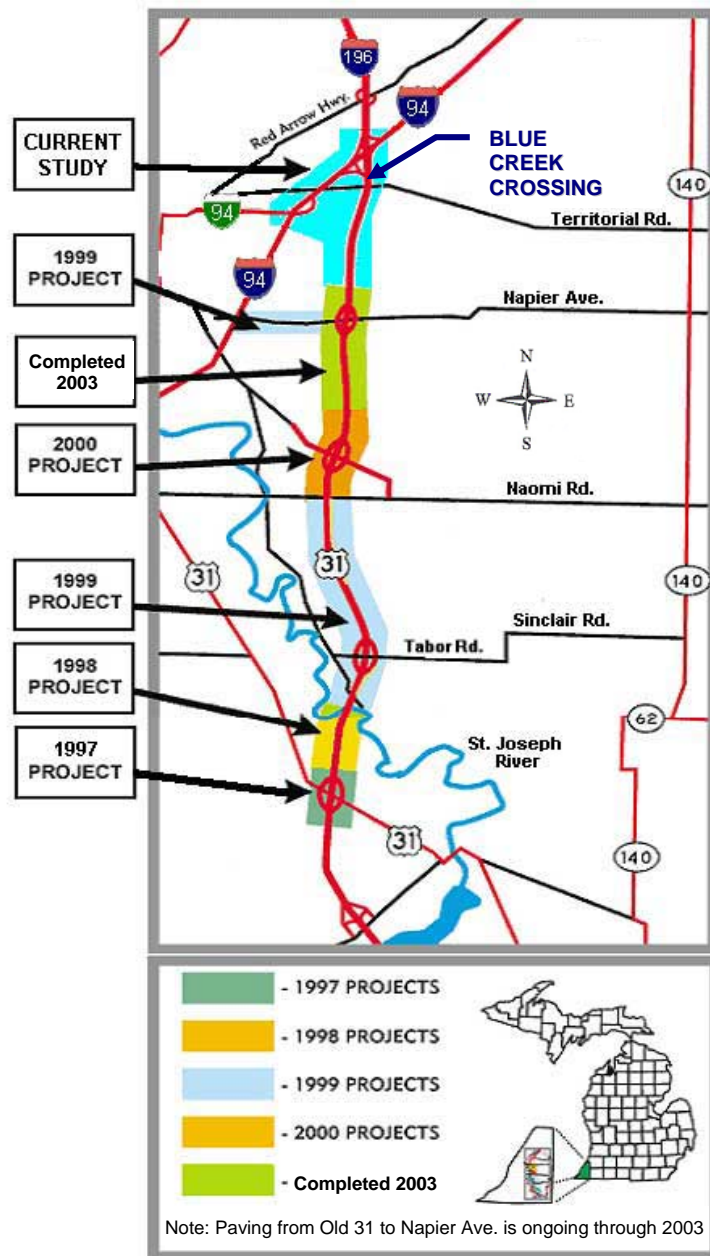


Figure 2.1 US-31 Corridor

In January 1998, the Michigan Department of Transportation (MDOT) conducted a Value Engineering Study and determined that more than \$20 million could be saved through the realignment of the US-31 connection to I-94. A connection to the Business Loop I-94 (BL-94) west of the originally approved I-196/US-31 interchange connection would avoid costly crossings of Blue and Yellow Creeks and preclude potential impacts on the environmentally sensitive Blue Creek Fen. In April 2001, MDOT initiated the process to assess the feasibility of alternative US-31 freeway connections to I-94 and to compare their costs and impacts to the approved 1981 FEIS alignment. In 2002 a Draft Supplemental Environmental Impact Statement (DSEIS) was prepared by MDOT as an update to the 1981 FEIS for approximately four miles of the approved US-31 freeway alignment between Napier Avenue and I-94. This Final Supplemental Environmental Impact Statement (FSEIS) takes into account recommendations made on the previously published DSEIS, October 2002 public hearing, and federal, state, and local agency comments in the development of the Recommended Alternative, which was previously identified as Preferred Alternative PA-2 in the DSEIS.

2.1.1 1981 FEIS Justification

The 1981 FEIS justification for the US-31 freeway focused on deficiencies of the original US-31 roadway, predominantly as a two-lane facility. A summary of this justification can be found in **Section 1.2 Planning Justification and Corridor Deficiencies.**

2.1.2 Public Investment to Date

Substantial public funds have been invested in the construction of the US-31 freeway, including an estimated \$108 million (1998 dollars) in combined federal and state funds for the construction of the segment extending from north of Berrien Springs to Napier Avenue. Construction of the segment under study between Napier Avenue and I-94 would complete the US-31 freeway in Berrien County and enhance the value of the previous public investments.

2.2 Purpose of the Proposed Action

The primary purpose of the proposed project remains consistent with that presented within the 1981 FEIS. That is to achieve connectivity to the existing US-31 freeway at the north and south termini of the study area, and a freeway system linkage to I-94. This project seeks to provide a free flow freeway traffic movement through the completion of the limited access US-31 freeway from Napier Avenue to I-94 in Berrien County. The 1981 FEIS provided a freeway connection to the east/west I-94 freeway and the north/south I-196/US-31 freeway as would the freeway Build Alternatives for this project.

As a result of construction completed in August 2003, the US-31 freeway extends from the Indiana Toll Road to Napier Avenue, a distance of approximately 25 miles. Northbound and southbound US-31 traffic must now utilize Napier Avenue as illustrated in **Figure 2.2.** Napier Avenue is a five-lane east-west road with segments having a 50-mph to 55-mph posted speed limit. Other east-west roads in the vicinity are two-lane facilities and do not provide direct access to either I-94 or I-196/US-31. Connection of the US-31 freeway to I-94 would complete the missing link in the overall system continuity of the

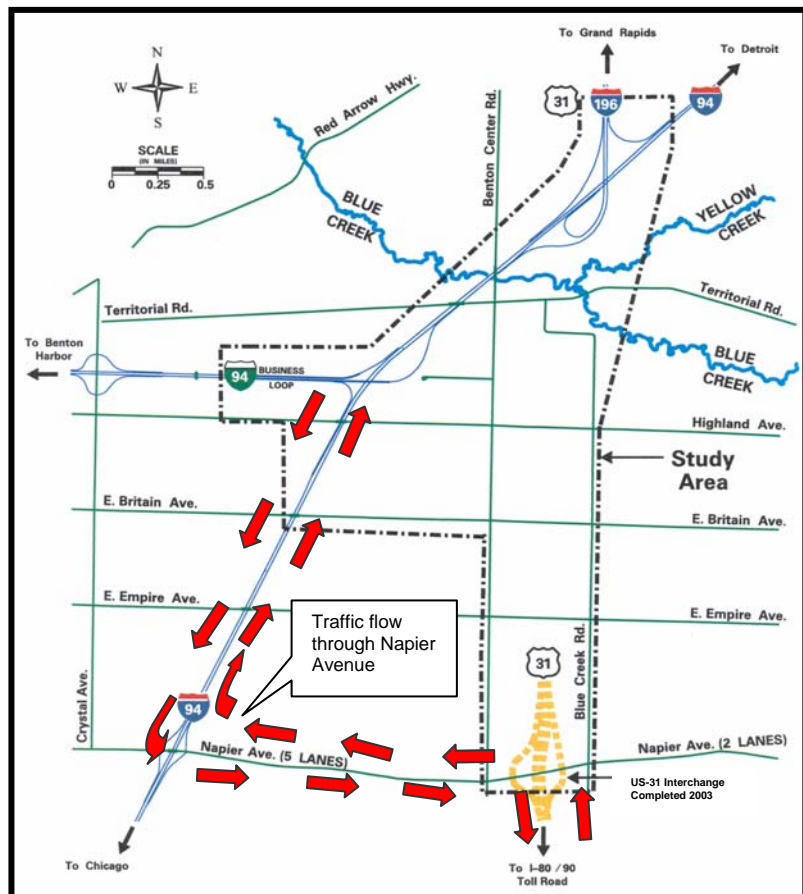


Figure 2.2 Existing Freeway Traffic Utilizing Napier Avenue

US-31 freeway and enhance the regional transportation network of southwest Michigan and northwest Indiana. Achieving free flow system connectivity through a north/south US-31 freeway linking to the I-94 freeway is a primary purpose of the proposed improvements.

Supporting purposes of the study alternatives have been to:

- Minimize impacts to the surrounding environment;
- Reduce construction costs from those estimated for the 1981 FEIS alignment;
- Improve the efficiency of north-south vehicular travel and the movement of goods and services throughout the entire US-31 corridor;
- Improve local access within Berrien County by providing greater accessibility between the rural southern and more urbanized northern portions of the county;
- Provide transportation improvements that are supportive of other economic development efforts within the Benton Harbor area.

2.2.1 Minimization of Environmental Impacts

A supporting purpose of this project is to reduce or eliminate potential adverse effects on the surrounding environment that would be associated with the previously approved alignment. Of particular concern is the sensitive wetland and fen ecosystem surrounding Blue and Yellow Creeks, which provides habitat for the federally endangered Mitchell's satyr butterfly. The Blue Creek Fen is one of only a few sites known to provide high quality habitat for the butterfly. A possible western connection of US-31 to I-94 at BL-94 would greatly reduce potential impacts to this sensitive ecosystem compared to the impacts of the original 1981 FEIS alignment connecting to I-94 at I-196.

2.2.2 Reduction of Construction Costs

Another purpose of this project is to further minimize construction and long-term maintenance costs associated with providing a US-31 freeway connection to I-94. The 1981 FEIS Recommended Alternative would require costly structures associated with the proposed reconstruction of the existing I-196/US-31 interchange. The mitigation of the potential impacts of the 1981 FEIS alignment to the Blue Creek Fen requires building two sets of 175-foot bridge approach structures and two 350-foot center spans over the Blue Creek Fen. A 1994 biological opinion from the US Fish and Wildlife Service would require that construction take place entirely above the valley floor with no access to the fen by construction crews. Special winter maintenance treatments such as the use of calcium magnesium acetate would be required to avoid potential salt runoff into the fen and storm drainage would have to be routed off bridge structures and away from sensitive habitat. These mitigation measures would add substantial initial and long-term maintenance costs to the project.

2.2.3 Efficiency of Travel/Local Access/Economic Development

The segment of US-31 under study has both independent utility and logical termini. Linking the US-31 freeway to the Indiana Toll Road to the south and the proposed freeway connection to I-94 to the north, this segment provides access to major east-west destinations within Michigan and the midwest. Construction of this connecting link between the existing US-31 freeway north of I-94 and the completed US-31 freeway to Napier Avenue to the south will also provide improved north-south access as illustrated in **Figure I** in the **Executive Summary**. A freeway connection will enhance travel patterns and safety through the study area, better accommodate the movement of goods, and assist existing economic development initiatives within the region by providing improved access.

2.2.4 Existing and Future Traffic Conditions

The future traffic projections for this study were derived from the Twin Cities Area Transportation Study's (TwinCATS) regional transportation demand model maintained by MDOT, and supplemented by MDOT's statewide model. A detailed discussion of the procedures and findings of this evaluation are provided in a separate traffic analysis report.

Existing Annual Average Daily Traffic (AADT) volumes collected between 1998 and 2000 were compared with a 2025 No-Build Alternative forecast, a 2025 forecast for the 1981 FEIS alignment (PA-4), and a 2025 forecast for a western connection to BL-94 (PA-2 and PA-3). These forecasts are illustrated in **Figure 2.3**.

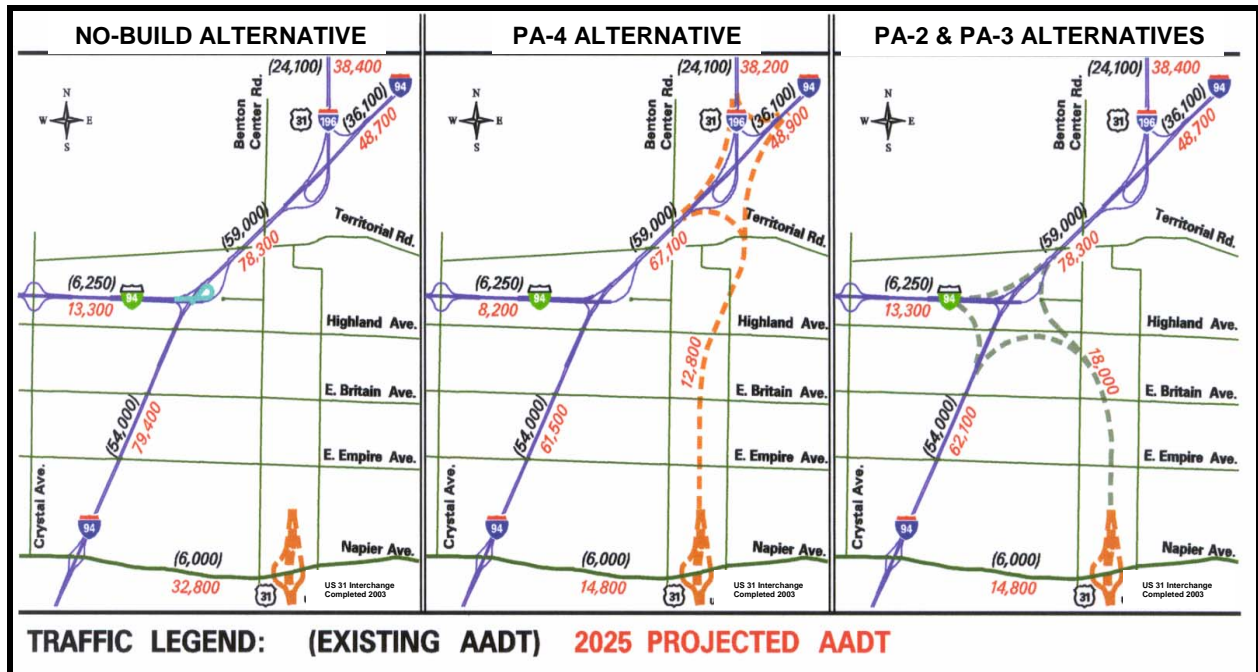


Figure 2.3 Total AADT by Alternative

Napier Avenue: Under the No-Build Alternative, traffic volumes on Napier Avenue are forecasted to increase by 447% by 2025, due primarily to ending the construction of the US-31 freeway at Napier Avenue.

I-94: For the No-Build Alternative, segments of I-94 within the study area are forecasted to increase in traffic volumes from 33% to 47% by 2025. If no action is taken, the 2025 level-of-service (LOS) for the segments of I-94 within the study area is estimated to range between C and D for the freeway segments, and range from C to E at various ramp locations.

LOS is a term that reflects the ability of a roadway to accommodate traffic. LOS ranges

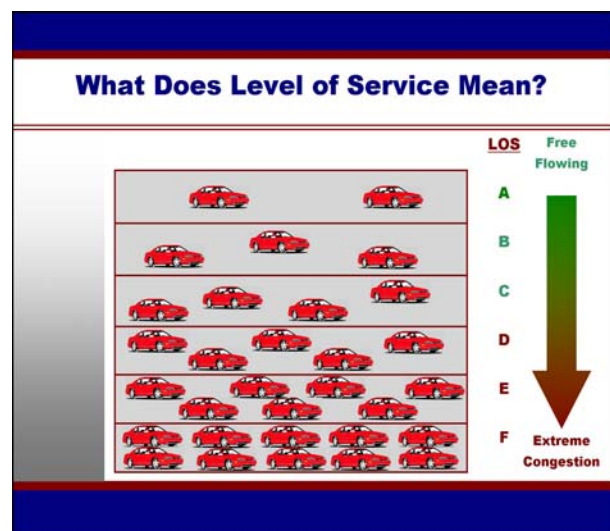


Figure 2.4 Level-of-Service as it Relates to Traffic Congestion

from A (representing free-flowing traffic at high speeds), B (speed somewhat restricted and short delays), C (speed is determined by traffic and moderate delays), D (tolerable but fluctuating speeds), E (roadway near capacity with limited speed and long delays), to F, which has high congestion and generally restricted operating speeds. **Figure 2.4** graphically illustrates LOS as it relates to traffic congestion. The Transportation Research Board's Highway Capacity Manual defines LOS D as the desirable minimum for new construction.

Figure 2.5 illustrates locations along I-94 where LOS is projected to be E or F at ramp entrances and exits in 2025. The 1981 FEIS alignment (PA-4 in this FSEIS) is projected to reduce I-94 2025 traffic volumes by 22.5% east of Napier Avenue and 14.3% east of BL-94 (**Figure 2.3**). There would be little change in traffic volumes east of I-196. Although the projected LOS is acceptable for the eastbound Napier Avenue to southbound US-31 intersection, in the No-Build Alternative operational delays will occur. Traffic simulation showed eastbound vehicles on Napier Avenue backing up due to the heavy right turn movement onto the southbound US-31 on-ramp.

A western US-31 connection to I-94 at BL-94 is projected to reduce 2025 traffic volumes by 21.8% east of Napier Avenue (**Figure 2.3**), compared to the No-Build Alternative. The 2025 LOS for the segment of I-94 between Napier Ave. and I-94 would improve from a LOS of D during the PM peak for the No-Build to a LOS of C during the PM peak for a western US-31 connection.

Business Loop I-94: Traffic volumes on BL-94 are expected to more than double from existing levels under the 2025 No-Build Alternative and the western Build Alternatives (**Figure 2.3**). The 2025 LOS is projected to be A for the No-Build and Build scenarios for the portions of BL-94 within the study area. The FEIS Alternative PA-4 is estimated to produce only modest traffic growth at BL-94 because of its connections at I-196/US-31.

I-196: The I-196 AADT is projected to increase by about 59% for all 2025 Alternatives. This is expected to result in a 2025 LOS of C for No-Build and Build scenarios for the segment of I-196/US-31 within the study area.

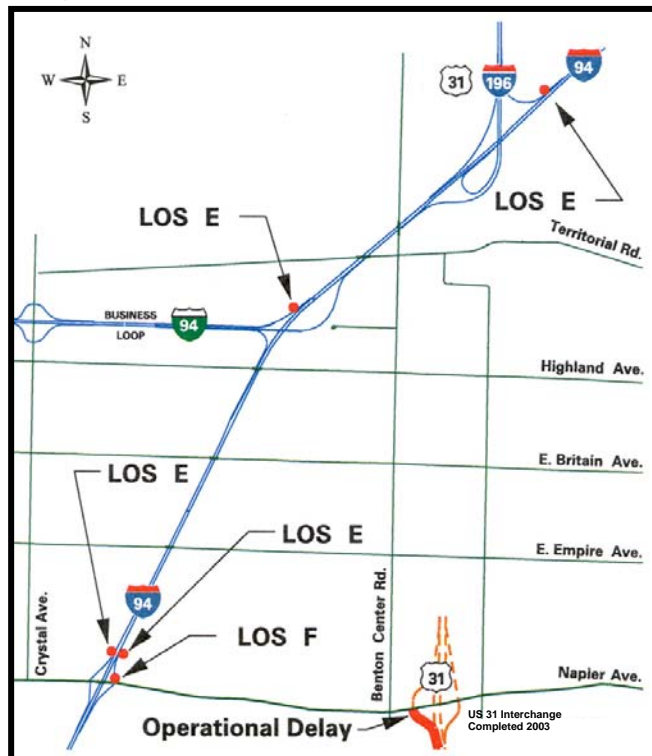


Figure 2.5 Locations Along I-94 With Undesirable 2025 Projected LOS (No-Build)

The detailed traffic analysis can be found in the Final Traffic Analysis Report, prepared as a separate document as a part of this study and is available upon request from MDOT.

2.3 Need for the Proposed Action

The need for completing the US-31 freeway to I-94 is supported by several factors including:

- System connectivity and linkage.
- Relief of traffic congestion on Napier Avenue that would exist under No-Build conditions.
- The need for improved access to I-94 and BL-94 to assist economic development initiatives in the economically depressed Benton Harbor area.
- The inadequacy of local roads to provide adequate capacity and a free flow movement for traffic wishing to access I-94, I-196/US-31 north, and BL-94 from the existing US-31 freeway.
- The inability of alternative modes of transportation to meet through traffic and commercial travel demands.

2.3.1 System Connectivity/Efficiency of Travel

The only convenient access to I-94 for northbound US-31 traffic at Napier Avenue is by way of the five-lane Napier Avenue facility. Increased traffic generated by the freeway will degrade the LOS on Napier Avenue, and is projected to cause substantial delays. Access to, and egress from, the traffic stream by local motorists will become increasingly difficult. To avoid this congestion, some motorists will seek alternative routes. These routes may be unsuitable for long distance through traffic and are generally not constructed to accommodate large traffic volumes or heavy loads. These potential travel inefficiencies support a freeway connection from Napier Avenue to I-94. The provision of an adequate north-south connection for the US-31 freeway is needed for the entire facility to achieve its optimum operational performance.

2.3.2 Napier Avenue Deficiencies

Although Napier Avenue was recently widened to five lanes, it will become increasingly congested under a No-Build Alternative. 2001 traffic on Napier Avenue (without the US-31 interchange) operated with about 6,000 daily trips and level-of-service B (LOS B) or better during the peak hour. By the year 2025, this volume is expected to increase to about 32,800 daily trips if the US-31 freeway ends at Napier Avenue. Over 50 percent of these projected daily trips are expected to be US-31 through trips seeking access to I-94 and the northbound I-196/US-31 interchange. This additional traffic on Napier Avenue will result in LOS E and F conditions at the signalized intersection with the eastbound I-94 ramps, LOS E conditions at the I-94/Napier Avenue ramps north of Napier Avenue, and operational delay at the eastbound Napier Avenue to southbound US-31 intersection.

Benton Charter Township is currently updating its long-range Master Plan. Township officials envision Napier Avenue developing commercially between the I-94 and US-31 freeway interchanges at Napier Avenue. This planned commercial growth, coupled with a forecasted 15% volume of heavy truck traffic, is expected to make Napier Avenue a less than desirable long term freeway-to-freeway connector. Napier Avenue by location, design, and usage, is best suited to function as a local primary road.

2.3.3 Business Loop I-94 Access

The I-94/BL-94 interchange currently permits only westbound I-94 access to BL-94 and the Benton Harbor area. Eastbound I-94 motorists have no direct access to the Benton Harbor area at BL-94. Reconstructing the BL-94 interchange to allow for the completion of the US-31

freeway connection to I-94 at BL-94 would remedy this situation. Providing for all movements at the BL-94 interchange is a part of all alternatives.

2.3.4 Local Access

To the extent that a US-31 freeway improves the efficiency of US-31 travel within Berrien County, it will also improve the north-south access between the rural and urban areas of Berrien County. The lack of a completed US-31 freeway encourages commercial and through traffic seeking access to I-94 and I-196/US-31 to utilize local roads, causing congestion and delay.

2.3.5 Alternative Routes/Incident Management

With the No-Build Alternative, if an incident were to occur on Napier Avenue between the I-94 and US-31 interchanges that required detouring traffic off Napier Avenue, extensive rerouting of traffic would be required. Freeway traffic would be directed onto primary and secondary roads that have a limited capacity to accommodate freeway traffic volumes.

2.3.6 Alternative Modes of Transportation

Improvements in the operation of alternative transportation modes are a means of addressing some transportation needs such as relief of traffic congestion. The success of these types of facility improvements is dependent on consumer and commercial demand. There are no passenger rail, non-motorized facilities, or conventional bus route services within or near the study area. Berrien Bus coordinates with the Twin Cities Area Transportation Authority (TCATA) and the City of Niles to provide a demand-response bus service (Dial-A-Ride) for residents of Berrien County. Berrien Bus is the only organization providing limited transit service within the US-31 study area. The lack of widespread alternative transportation modes further increases demand on the region's highway facilities. In this rural setting, alternate modes of transportation are not deemed a practical and feasible alternative.

2.3.7 Economic Development

The continued economic viability and attractiveness of southwest Michigan depends on having a modern and effective transportation system in place. Economic growth in Berrien County, especially in urban areas, is dependent on the access that its citizens have to employment and markets. Of equal importance is the ability of businesses in Berrien County to transport their goods to major urban centers in the midwestern United States. The completion of the US-31 freeway to I-94 would improve the transportation network in southwest Michigan and enhance north-south access from Berrien County to major US markets.

The final segment of the US-31 freeway connection to I-94 will also provide the economically depressed areas of Benton Harbor with greater access to midwestern markets. Benton Harbor has a large low-income population with more than 42% of households below the poverty line. Based on 2000 Census data, the median household income of \$17,471 is well below the Michigan average of \$44,667.

The Benton Harbor/St. Joseph area contains ten subzones within a State of Michigan Renaissance Zone, an area that provides state tax incentives to attract new businesses. Three of the subzones, the Elisha Gray Enterprise Park, the I-94 Industrial Park, and the Meadowbrook and Yore subzone, are located in the vicinity of the proposed improvements, as illustrated in **Figure 2.6**. A fourth subzone, the Edgewater Redevelopment Area, is located in a central part of Benton Harbor/St. Joseph and will have direct access to BL-94 once an additional

local bridge is constructed over the Paw Paw River. This Paw Paw River bridge is due to be let for construction in 2004. Properties within the Renaissance Zone subzones may be exempt from state and local taxes for up to eight years. The program will be phased out in 2011 and taxes will be phased back in during the last three years of the program in 25% increments. A US-31 freeway connection to I-94 will provide better access to these areas targeted for economic development.

Southwest of the study area, access for commuters and goods is very important to economic vitality in the City of St. Joseph. The 1993 Strategic Plan for the City of St. Joseph recommends “an efficient street and highway system that will ensure maximum traffic flow and accessibility to developed areas at reasonable costs.” The full completion of the US-31 freeway to I-94 is among the opportunities to enhance access to BL-94 and the Benton Harbor/St. Joseph area.

As illustrated in **Figure 2.6**, the Southwest Michigan Regional Airport (Ross Field) is located on Territorial Road, just north of BL-94. A 1999 MDOT study concluded that its contribution to the local economy was \$14 million per year. In May 2003, a Finding of No Significant Impact (FONSI) was approved for improvements to the airport including the extension of one runway and the creation of several runway safety areas to meet Federal Aviation Administration (FAA) standards. **Figure 2.6** also illustrates the approved airport expansion areas.

The Benton Harbor Fruit Market is also located on Territorial Road and is one of the largest wholesale produce distribution centers of its kind in North America. The economic impact of this wholesale market on the region has been estimated at \$15 million to \$25 million annually. During the height of the summer and fall seasons the market management reports receiving 100 semis and 150 farm trucks per day. Access from the south and southeast to these economic assets is inefficient. Northbound vehicles currently must exit I-94 3.5 miles to the south and use local roads through the City of Benton Harbor in order to access these facilities. Connecting the US-31 freeway to I-94 would improve access to both of these facilities and allow them to enhance their competitive positions.

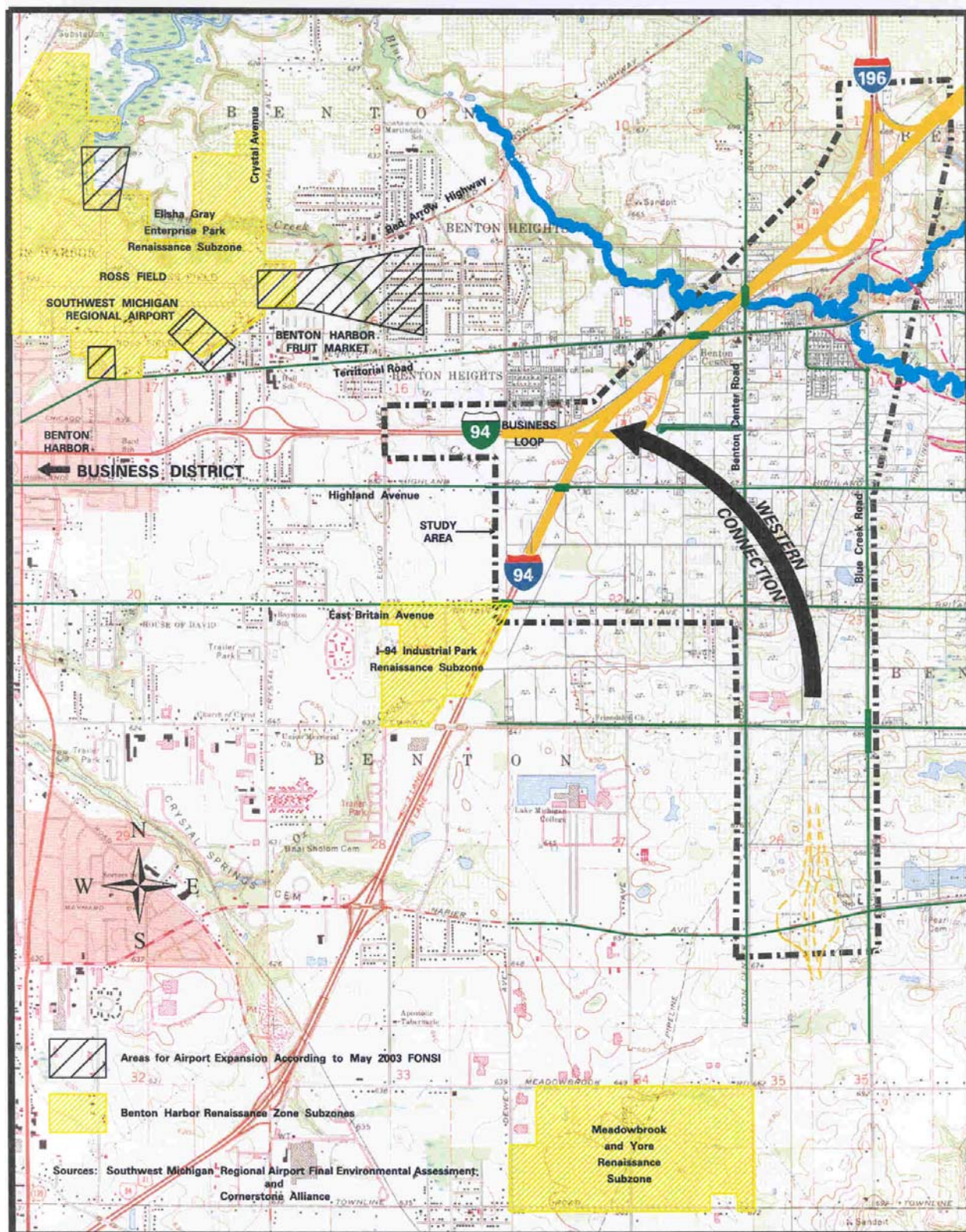


Figure 2.6 US-31 Freeway Connection at Business Loop I-94
Economic access provides added justification for a freeway connection

2.4 Project Goals

MDOT working in cooperation with local stakeholders, including TwinCATS, the Southwest Michigan Commission, Berrien County, and Benton Charter Township, developed the following series of goals for the project. Project goals and a foldout map can also be found in **Appendix F** located at the back of this document.

1. Maintain or improve existing traffic safety and level-of-service along mainline I-94.
2. Minimize the loss of homes, businesses, and farms.
3. Compare alternatives to the approved 1981 FEIS alignment to minimize costs and impacts to the surroundings.
4. Minimize environmental impacts to known threatened and endangered species within the study area.
5. Use previously acquired MDOT right-of-way where possible.
6. Provide a free flow traffic movement between US-31 and I-196/US-31.
7. Provide an implementation schedule that is consistent with the highway construction program for advancing transportation improvements statewide.*
8. Provide for improved access to the Twin Cities (St. Joseph/Benton Harbor) area and the Southwest Michigan Regional Airport (Ross Field).
9. Avoid deficiencies that may result from high traffic volumes on Napier Avenue due to the lack of a limited access freeway connection to I-94, and separate conflicting local vehicular trips on Napier Avenue from the high volume of US-31 through trips.

* Current implementation plan is described in the 2003 to 2007 MDOT five year plan.

These goals were considered in the development and refinement of alternatives for the project.

2.5 NEPA/404 Concurrence on the Statement of Purpose of and Need for the Proposed Action

As a part of the State of Michigan's concurrent NEPA/404 environmental clearance and wetland permitting process, a Statement of Purpose of and Need for the project was sent to the Michigan Department of Environmental Quality, the United States Army Corps of Engineers, the United States Environmental Protection Agency, and the United States Fish and Wildlife Service. Letters of concurrence on the Purpose of and Need for this project have been received from each of these agencies and can be found in **Appendix E.1**.